



CONGRESSIONAL HEARING RESUME

106th Congress

Date: 16 March 00

SUBJECT: Air Force Modernization Hearing/JSF Hearing part 1

COMMITTEE: House Armed Services Committee
Subcommittee on Procurement
Subcommittee on R&D

CHAIRMAN: The Honorable Duncan Hunter

MEMBERS PRESENT (bold face):

REPUBLICANS

Duncan Hunter (CA)
Curt Weldon (PA)
Floyd D. Spence (SC)
Roscoe G. Bartlett (AZ)
Bob Stump (AZ)
Steven Kuykendall (CA)
James V. Hansen (UT)
Donald Sherwood (PA)
Jim Saxton (NJ)
John R. Kaisich (OH)
James Talent (MO)
Herbert H Bateman (VA)
Terry Everett (AL)
Joel Hefley (CO)
J. C. Watts, Jr. (OK)
John M. McHugh (NY)
Mac Thornberry (TX)
Howard "Buck" McKeon (CA)
Lindsey Graham (SC)
John Hostettler (IN)
Jim Ryun (KS)
Saxby Chambliss (GA)
Jim Gibbons (NV)
Van Hilleary (TN)
Joe Scarborough (FL)
Walter B. Jones, Jr. (NC)
Bob Riley (AL)

DEMOCRATS

Norman Sisisky (VA)
Owen Pickett (VA)
Ike Skelton (MO)
Gene Taylor (MS)
John M. Spratt, Jr. (SC)
Martin T. Meehan (MA)
Lane Evans (IL)
Patrick K. Kennedy, (RI)
Rod R. Blagojevich (IL)
Silvestre Reyes (TX)
Tom Allen (ME)
Vic Snyder (AR)
Jim Turner (TX)
Loretta Sanchez (CA)
Adam Smith (WA)
Ciro D. Rodriguez (TX)
James H. Maloney (CT)
Robert Andrews (NJ)
Mike McIntyre (NC)
Baron B. Hill (IN)
Carolyn McKinney (GA)
John B. Larson (CT)
Ellen O. Tauscher (CA)
Robert Brady (PA)

WITNESSES: Dr. Lawrence J. Delaney Assistant Secretary of the Air Force (Acquisition)
Lt Gen Stephen Plummer Principal Deputy Assistant Secretary of the Air Force (Acquisition)

Information contained in this resume was obtained during an open hearing. It will not be released outside of the Department of Defense (DoD) agencies until published hearing transcripts have been released by the Committee, and only to the extent it is in accord with published hearing procedures.

Prepared by: Maj Richard M. Clark Date: 16 March 00 Phone number: 693-9126

EXECUTIVE SUMMARY

The Hearing was very cordial throughout the entire proceeding. The main concern is that compared to FY00 projections, the Air Force has deferred quantities and funding of several key programs to later years. This has resulted in increased unit procurement costs and/or delayed the introduction of important weapons and capabilities. The Chief of Staff of the Air Force has submitted unfunded priorities totaling approximately \$3.5 billion for FY01, and this is a key indicator of the lack of Air Force funding. The hearing covered the major issues and programs of concern. Following the normal hearing procedures, the chairman held an open and closed session on the draft GAO report on the JSF.

The Subcommittees were called to order at 1300

OPENING REMARKS

Chairman Hunter (Proc): Welcomed all of the guests and introduced witnesses. He then stated that the FY01 procurement budget request is 12% increase over the FY00 request, but is 1.7% less than the amount the administration anticipated last year. The average age of aircraft in the inventory is 20 yrs and will be 30 years in 2015. The cost to maintain aircraft is growing and MC rates are declining. The 12% increase over last year's request is not enough, and this is of great concern.

He then discussed the ROE for the hearing, and informed everyone that there would be a closed JSF hearing immediately following this one.

Chairman Weldon (R&D): He is pleased with the progress the AF has made in precision munitions and advanced sensors. He concerned, however, with the balance of the modernization budget. Only 7% is for missile defense programs and 93% is for traditional programs. He was greatly disturbed by the SBIRS high/low cuts from last year, and he is displeased with the ABL cuts this year after the committee supported the program. This doesn't show strong AF support for missile defense. Only a handful of items on the UPL were R&D programs, and S&T funding is well below the required levels. Regarding the on-going activity to improve ejection seats, he is upset that joint ejection seat funding is not being equally distributed among competitors. It appears that one competitor is receiving $\frac{3}{4}$ of the funds.

Rep. Sisisky: Requirements is a recurring theme. We need more people, and our equipment is getting worn out through all of the deployments. It is wrong to think you can do more with less. A \$1billion plus-up is not enough. That only meets 6% of the unfunded requirements.

Rep. Pickett: Several troubling aspects of the PB. Key programs like ABL and C-17 multi-year were delayed. JSF has several areas of risk and F-22 cost reductions may add risk. At a time when we should be investing in leap ahead technology, the S&T budget fell to less than 4% of the modernization budget. Upgrades to long range bomber fleets is important and work with unmanned aerial vehicles and aircraft propulsion are important. Need a sound strategy for "software acquisition management."

WITNESS STATEMENTS

Dr Delaney

"Our modernization focus is synchronized with Joint Vision 2010—the conceptual template for how America's Armed Forces will channel the vitality and innovation of our people and leverage technological opportunities to achieve new levels of effectiveness in joint warfighting. Complementing Joint Vision 2010 is the Air Force's long range vision to become an Expeditionary Aerospace Force. Success is heavily dependent on the full set of

Air Force core competencies: Rapid Global Mobility, Aerospace Superiority, Global Attack, Precision Engagement, Information Superiority, and Agile Combat Support. We cannot focus on any core competency at the neglect of the others—"you have to mind the whole store!" We will leverage technology to improve combat effectiveness through upgrades of legacy systems, selective new starts, and investment in critical technology programs for advanced systems."

Dr Delaney then went on to expand on the AF's efforts under each core competency.

Lt Gen Plummer

Concurred with Dr. Delaney's statements.

KEY COMMENTS, QUESTIONS, AND ANSWERS

Chmn Hunter was concerned about low numbers of CALCM and the effectiveness of the system. He stated that CALCM is very expensive, but JDAM is much cheaper and it works well. We can use stealthy B-2s to get in close to the target and deliver a JDAM, which is 1/50 of the cost of a CALCM. We need to build inexpensive B-2s that can carry several munitions.

Dr. Delaney answered and informed him that we are working hard to meet the need through ALCM to CALCM conversion (short term), extended range CALCM program (mid term), and long range cruise missile program (long term). He also informed him that we are currently conducting a study to determine the need for a next generation bomber.

Lt Gen Plummer added that we need to have a balanced approach regarding munitions. Stealth is not magic, and we don't know what future threats might emerge.

Rep Sisisky stated that upgrades to the B-52 take it out to 2040. That will be comparable to us flying Sopwith Camels today. He asked how the B-1 did in Kosovo? How is F-22 testing progressing? What effect is the Boeing strike having? Dr. Delaney replied that the B-1 did well in Kosovo. Dropped primarily non-precision weapons and struck a wide variety of targets.

Lt Gen Plummer added that Kosovo was not the first time that the B-1 performed in combat. Desert Fox was the first time. It had superb performances in both conflicts.

Chmn Hunter asked if we are still having problems with offensive and defensive systems.

Gen Plummer stated that we are working both and are making good progress. Regarding the F-22 questions from rep Sisisky

Dr. Delaney added that all is going well with F-22 testing. We are on schedule and exploring all envelopes.

Two high points of the F-22 testing are air refueling and in-flight telemetry. Air refueling makes test flights more productive and in-flight telemetry allows us to gather real time data during test flights.

Rep Sisisky asked what effect the strike will have on F-22.

Dr. Delaney stated that we have discussed this with the senior management at Boeing and if the strike lasts 30 days, we can make LRIP criteria this year, but if the strike lasts 60 days, we won't make LRIP criteria by the end of the calendar year.

Chmn Weldon believes that regarding missile defense, there is a perception that the AF and BMDO are not cooperating. He emphatically asked why the AF reduced funding on ABL and not talk to BMDO? He also stated that it doesn't appear that the AF has the appropriate level of cooperation on SBIRS low either.

Dr. Delaney stated that regarding ABL, priorities had to be made. Significant discussions took place at the Dept of the AF level, but he was not aware of any discussions with BMDO regarding ABL. He went further and stated that we structured the program so that if FY01 dollars were restored we could move back to FY03 shootdown schedule.

Lt Gen Plummer added that the decision was not a matter of technology or schedule, it was a matter of funding and fiscal priorities. Regarding SBIRS, Dr. Delaney stated that we have formed a board of directors for SBIRS with BMDO. We meet a couple of weeks ago and Gen Kadish was a part of the discussion. We are talking on SBIRS.

Chmn Weldon was happy with this answer.

Chmn Weldon then moved on to ejection seats. He stated that there is language in FY00 for ejection seats saying that funding should go to competitors equally and fairly. It was his understanding that one company is receiving most of the funding. The funding is not being fairly distributed.

Dr Delaney said he expected that the money will be distributed fairly.

Chmn Weldon understands that that there is \$40M going to a company in Connecticut to fund the K-36 ejection seat. He asked if the AF was aware of that? He also asked if the AF was receiving guidance (pressure) from the White House to fund the K-36 ejection seat? **He wants us to report back to him with any additional information on this issue.**

Rep Pickett stated that the AF needs 19 JSTARS aircraft, and then asked what were the AF's plans for this weapon system? He asked because there are indications that we are moving closer towards closing the line.

Dr Delaney confirmed that there is a requirement for 19 aircraft. The UPL requested \$40M, and we will produce 15 aircraft and then determine whether to close the line or not.

Rep Pickett then stated that there are delays and cost growths with the CV-22. He asked if the simulators being built in time?

Dr. Delaney stated that the Navy is the leading service, and it is structuring the budget to correspond with new information. The Navy is doing a report.

Lt Gen Plummer added that there is a problem getting the simulator on line and it is being addressed.

Rep Chambliss asked about a \$9B cost overrun on F-22.

Dr Delaney stated that we expect to be within cost caps with regards to EMD costs. We have potential savings identified and they will keep us under the cost caps and will balance out any cost growth. We are also looking for places to realize cost savings to keep F-22 under cost cap. We meet every month with executive contractors to review costs.

Rep Chambliss followed up by stating that the committee must understand that we are on target and we're under cost caps.

Dr Delaney confirmed this and stated that we are under the cost curve.

Rep Chambliss then moved on to F-22 testing.

Dr Delaney stated that this was a great story, and that it going according to plan.

Next, **Rep Chambliss** asked about the C-17 and whether reducing the buy from 15 to 12 would impact the multi-year buy.

Dr. Delaney stated that it would not impact the sale because our people had the foresight to sell our place in line. Our potential sale of three aircraft to the UK is a testament to the program because the aircraft can be delivered to the UK without upsetting our schedule. The UK realized their short term needs in Kosovo, and we hope that they will choose the C-17.

Rep Chambliss confirmed that reducing from 15 to 12 would not impact multi-year buy, and Dr. Delaney agreed.

Rep Chambliss next asked about JSF. He wanted to know where we are with it.

Dr. Delaney stated that it is in concept demonstration phase and we have two contractors on board. A large number will be purchased, which will allow us to get an affordable platform. We are striving for affordability and commonality. He also stated that all of the JSF technologies are in the low risk category, and we will integrate them during EMD.

Rep Chambliss ended by stating that he would like to help us get all 19 JSTARS.

Rep Saxton asked if we are pleased with C-17 production

Dr Delaney said he was just at the production facility and the automated and parallel production lines are working well. The AF is working closely with the contractor to get a good price.

Rep Saxton asked if we are ahead of production schedule.

Dr. Delaney answered that we are 5 months ahead. He also stated that the C-17 was a star in Kosovo.

Rep Saxton asked about brigade air drop and C-17.

Dr Delaney stated that we have made progress here by working with air flow fields and turbulence. Separation distance has been reduced. He also discussed the 2 rail issue.

Rep Saxton also wanted to know about MRS-05 and C-5 modernization.

Lt Gen Plummer answered that the MRS-05 study would be complete this summer and it would determine the best way to mix Modernized C-5s with C-17s.

Rep Sanchez asked what effect a delay in JSF would have.

Lt Gen Plummer replied that a delay would exacerbate the problem of replacing the F-16 and A-10. He expounded on the criticality of replacing these aircraft.

Rep Sanchez also asked Dr Delaney to discuss the difference between the JSF and the F-22 to get it on record. Dr Delaney did so, and he discussed the issue including the high/low mix between the two aircraft.

Rep Kuykendall asked what aircraft will take over the air superiority and SEAD roles.

Lt Gen Plummer stated that F-22 will do both OCA and some forms of SEAD.

Rep Kuykendall next asked if we would have two companies produce the JSF.

Dr Delaney stated that it is a winner take all strategy, and one company will produce all of the approximately 3000 platforms. There is, however, a study that will look at other possibilities.

Rep Taylor asked if the B-1 flew 100% of sorties assigned in Kosovo. **He wants us to get back to him on this.** He also stated that there was high demand for E-3s to use in drug enforcement, and **he wants to know why we haven't asked for more?** His final question was, what would we change on the UPL

Dr. Delaney said the UPL goes through the corporate process and we all agree on it.

Rep Saxton wanted us to discuss the re-engining of the KC-135.

Lt Gen Plummer said a study had recently been sent to Congress, and he discussed some of the options brought out in the study.

At this point the Panel Changed and the Hearing switched to a JSF Forum

Witnesses:

Dr Delaney

Maj Gen Hough (USMC), JSF SPO Director

Mr Rodrigues, Director, Defense acquisition issues, GAO

JSF panel was planned to be a briefing in a closed session.

Chmn Hunter requested that Mr Rodrigues and Maj Gen Hough make opening remarks in the open session.

Mr Rodrigues stated that the GAO was a participant in the DOD 5000 initiative with the objective of procuring better weapons, cheaper and faster than the current procurement practices. He stated that the DOD had testified just this morning that they have accepted Technical Readiness Levels (TRLs) and that long term commitments will not occur until technology has matured. Mr Rodrigues stated the signal will be business as usual if DOD 5000 isn't used for the JSF program.

Mr Rodrigues proceeded to describe the Concept Demonstrator Aircraft (CDA) and Preferred Weapons System Concept (PWSC) program.

Mr Rodrigues is concerned that once a program is in the EMD environment then external forces cause the program manager to keep the program moving even if the technology is not ready.

Mr Rodrigues stated that the GAO found that many critical technologies within the JSF program will not be tested on demonstrator aircraft prior to EMD. He went on to describe the basic TRL levels explaining that the lower the TRL level the more risk to the program. He cited the Comanche as an example of a program that had low TRL levels entering EMD and it resulted in a 101% increase in cost. He then used the JDAM as an example of a program that entered EMD with a high TRL and ended up with a 50% cost decrease.

Chmn Hunter interjected that the JDAM is a dumb bomb with a strap on kit and was not very complex. He said the question of the day was whether we have enough technical information to go to the next phase and whether laboratory technology is enough?

Mr Rodrigues stated that none of the eight critical technologies will be level 7 prior to EMD. He said to expect an increase of several billion dollars if this technology does not mature on schedule. He recommended the JSF program slip the start of EMD without funding consequences. He did not give any specific time delay even when prompted by Chmn Hunter.

Chmn Hunter asked Maj Gen Hough, "Are we are too early?"

Maj Gen Hough gave an emphatic "No!"

He pointed to page 18 of the GAO report for the definition of TRL 7 which gives as an example flying the JSF technologies on an already existing aircraft.

Maj Gen Hough stepped back to look at the "crux of the problem". He said their principle objective is to demonstrate the technology to a low level of risk and then integrate the technology in EMD. He explained that the CDA program aircraft are not prototypes, they are "X" aircraft. He explained that the only thing that goes in those aircraft are things that can not be demonstrated any other way to include lab testing.

Maj Gen Hough then used an example of JIST technology which was rated by AFRL as a "9", but the JSF program office only rated it as a 6. He then said that the JSF technology is matured it is just not integrated. He said the JSF program office does not like TRLs and did not use TRLs because it does not look at integration. He said the GAO would have us fly all the technology on the CDAs, but we are not going to do this.

Chmn Hunter summarized that the real test is integration and we have to do EMD to integrate the technology.

Maj Gen Hough-Yes!

Mr Rodrigues stated that it did not have to be on a CDA, it could be on any aircraft.

Maj Gen Hough reemphasized that we do not use TRLs because it does not look at integration, but we are demonstrating the technology.

The session was then delayed for votes and resumed as a closed briefing

The closed session was interrupted several times for votes and meetings. Chmn Hunter asked the Mr Rodrigues and Maj Gen Hough to address each of the eight technologies addressed in the GAO report. The first technology was STOVL airflow and propulsion control. Mr Rodrigues and Maj Gen Hough went point counter point for 40 minutes on the first technology with out any clear resolution although the members seemed to understand Maj Gen Hough's points more than Mr Rodrigues' counter points. After another interruption for votes that turned into a long delay the Chmn called back to adjourn the meeting. He emphasized that the committee is still very interested in the subject and would like to finish the session at a later date.